EXHIBIT 6

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SONOS

Overview of Selected Sonos Patent Assets Relevant to Google October 2016

	TATES DISTRICT COURT DISTRICT OF CALIFORNIA
TRIAL	EXHIBIT 6636
DATE E BY	O. <u>3:20-cv-06754-WHA</u> NTERED

FOR DISCUSSION PURPOSES ONLY - SUBJECT TO FRE 408

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Appendix A Index According to Example Google Product

"For years, Sonos has been synonymous with the concept of multi-room audio, so much so that it's almost hard to know which came first. At the very least, Sonos spotted a trend long before its competitors – at most, it's responsible for making the market what it is today." - What Hi-Fi

Summary of Relevant Google Features

The table below identifies patents and allowed patent applications containing claims that are believed to be relevant to one or more Google products.

Sonos notes that the identified patents and patent applications may also be relevant to other existing and/or future Google products that incorporate similar features and/or functionality, including but not limited to, e.g., Google Pixel.

Google Feature	Patent or Allowed Application	Relevant Google Products
Audio Distribution Between Devices Playback device distributes audio to another playback device.	9,213,357; 9,189,011	 Google Chromecast Audio Dongle devices Google Home Google Cast SDK and Google Cast Speaker Product devices
Synchronization of Playback Between Devices Synchronize playback of the same audio between playback devices.	8,938,637; 8,370,678; 8,689,036; 9,348,354	 Google Chromecast Audio Dongle devices Google Home Google Cast SDK and Google Speaker Product devices
Group Formation of Devices Dynamically form groups of multiple playback devices.	9,182,777; 9,288,596; 9,164,532; 9,218,017 *14/041,989	 Google Chromecast Audio Dongle devices Google Home Google Cast SDK and Google Cast Speaker Product devices Google Cast Application Google Android Devices with Cast and/or Play Applications
Group Maintenance/Status Information The playback system (including a controller device) is aware of the playback devices and groups of playback devices within the playback system.	9,195,258; 9,207,905; 9,170,600; 9,213,356; 9,348,824	 Google Chromecast Audio Dongle devices Google Home Google Cast SDK and Google Cast Speaker Product devices Google Cast Application Google Play Music Application Google Android Devices with Cast and/or Play Applications
Group Volume Control Control the volume level of playback devices and groups of playback devices within the playback system.	8,588,949 ¹ ; 7,571,014	 Google Cast SDK and Google Cast Partner Control Applications Google Cast Application Google Play Music Application Google Android Devices with Cast and/or Play Applications
Setup Using Inaudible Tones Use inaudible tones to set up and provide access to control playback devices (e.g., quick guest access).	8,930,005 *14/558,944 *14/679,815	 Google Chromecast Audio Dongle devices Google Cast SDK and Google Cast Partner Control Applications Google Cast Application

¹ Reexamination Certificate issued Nov. 5, 2015. Reexamination Request No. 90/013,423.

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Fault Tolerance A playback device goes offline (e.g., lose power) and returns online (e.g., gain power) and returns to its original playback state.	*14/521,682	 Google Play Music Application Google Android Devices with Cast and/or Play Applications Google Chromecast Audio Dongle devices Google Home Google Cast SDK and Google Cast Speaker Product devices
Playback Transfer Transfer playback of a song from a music service application (e.g., Google Play) to a playback device (e.g., Google Chromecast Audio Dongle device).	*14/520,566	 Google Cast SDK and Google Cast Partner Control Applications Google Cast Application Google Play Music Application Google YouTube Application Google YT Music Application Google Android Devices with Cast and/or Play Applications
Silent Connect Automatically reconnect a controller application to control a playback device (e.g., Google Chromecast device) upon returning to the proximity of the playback device.	*13/904,949	 Google Cast SDK and Google Cast Partner Control Applications Google YouTube Application Google YT Music Application Google Android Devices with YouTube and/or YT Music Applications
Additional Selected/Representative Patents Relevant to Cast Partner Speaker Product "Vertical" Features Various selected "vertical" playback system features including, e.g., stereo pair, line-in processing, establishing a secure wireless network, instantiation of zone scenes (including alarms), and cloud-based queues that are believed to be practiced by Google Cast Speaker Product devices and/or Google.	9,219,959 ² ; 9,202,509; 8,938,312; 8,483,853	Google Cast SDK and Google Cast Speaker Product devices

^{*}Allowed claims

 $^{^2}$ Order Granting Request for Ex Parte Reexamination entered in Reexamination Request No. 90/013,756.

Chromecast Audio Dongle



CHROMECAST AUDIO

\$35 BUY NOW

Chromecast Audio Dongle³

1. Audio Distribution Between Devices



Sonos Website, 2004

Play music everywhere with Multi-room

Multi-room lets you group Chromecast Audio devices together so you can listen to the same song on multiple speakers.

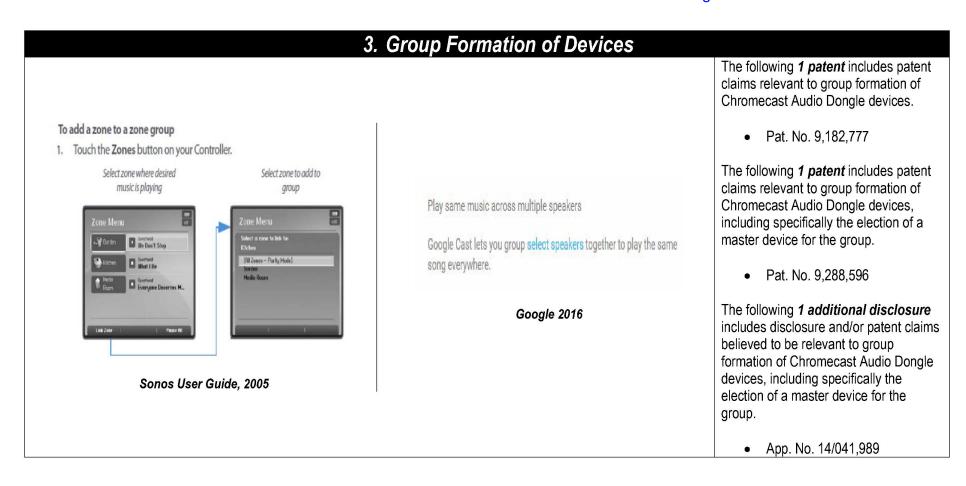
Google 2016

The following **2** patents include claims relevant to the distribution of audio between Chromecast Audio Dongle devices.

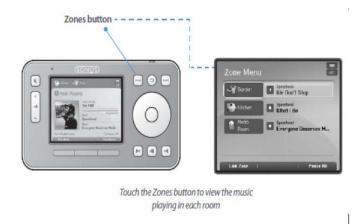
- Pat. No. 9,213,357
- Pat. No. 9,189,011

³ Based on information available publically to date, there is an expectation that many of the patents identified will also be relevant to the forthcoming Google Home product.

2. Synchronization of Playback Between Devices The following 4 patents include patent claims relevant to synchronization of playback between Chromecast Audio **BLAST THE SAME** With a Sonos™ Digital Music System you can: SONG IN EVERY ROOM Dongle devices. --- Simultaneously play the same song or different songs in as many rooms as you'd like — up to 32. Multi-room sync lets you play the same -- Easily access your entire digital music collection Pat. No. 9,938.637 song across Multi-room compatible --- Wirelessly control all your music and all your rooms—from anywhere with Sonosnet™. Pat. No. 8,370,678 speakers in your house at the same time. --> Enjoy great sound in every room. Pat. No. 8,689,036 Pat. No. 9,348,354 Sonos Website, 2004 Google 2016



4. Group Maintenance/Status Information



Sonos User Guide, 2005

Play same music across multiple speakers

Google Cast lets you group select speakers together to play the same song everywhere.

Google 2016

The following *4 patents* include patent claims relevant to the maintenance of and status of groups of Chromecast Audio Dongle devices.

- Pat. No. 9,195,258
- Pat. No. 9,207,905
- Pat. No. 9,170,600
- Pat. No. 9,213,356

The following *1 patent* includes patent claims relevant to the maintenance of and status of groups of Chromecast Audio Dongle devices, including identification of particular devices according to group identification.

Pat. No. 9,348,824

5. Setup Over WiFi

1-2-3 Setup

It takes just 3 steps to get your Sonos Digital Music System up and running:

- Connect speakers to your ZonePlayer
- 2 Connect the first Sonos ZonePlayer (with Ethernet cable supplied) to your home network
- 3 Install the computer software (or use a Controller) to configure your music system

Sonos User Guide, 2005

Easily cast music, without the hassle of pairing

Tap the Cast button from your favorite music apps to start casting to your speakers. Adjust the volume or change the song, right from your phone.

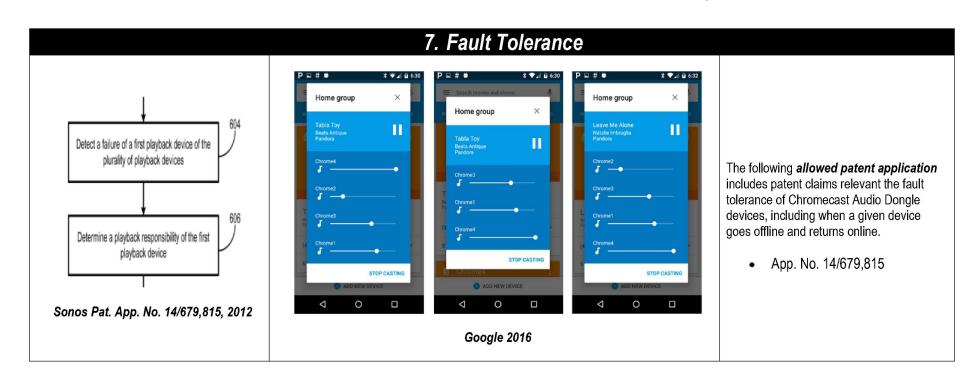
Unlike Bluetooth setup, Google Cast works over WiFi so you can connect more than one device to your speakers at a time and control what's playing from anywhere in the house.

Google 2016

The following *patent disclosure* includes disclosure believed to be relevant to the setup of Chromecast Audio Dongle devices on a WiFi LAN now or in the future.

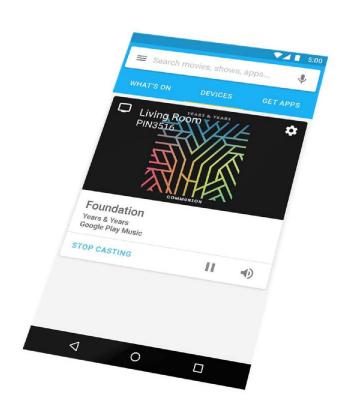
Pat. No. 8,326,951

6. Setup Using Inaudible Tones The following 1 patent includes patent Chromecast guest mode claims relevant the setup of Chromecast Signal Mixing 506 Guest mode PIN Audio Dongle devices using inaudible Audio Output 508 tones. NEXT: GUEST MODE FAQS > Pat. No. 8,930,005 A 4-digit PIN is required for connecting to a Chromecast in guest mode. When a device nearby tries to connect, the Chromecast automatically transfers that PIN using short, inaudible audio tones. If the audio tone pairing fails, your guest The following 2 allowed patent will be given the option to connect manually by entering the 4-digit PIN. FIGURE 5 applications includes patent claims Google 2016 relevant the setup of Chromecast Audio Sonos Pat. No. 8,930,005, 2012 Dongle devices using inaudible tones. App. No. 14/558,944 App. No. 14/679,815



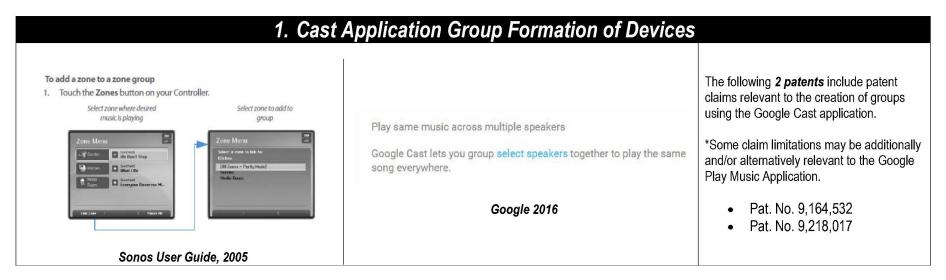
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Google Cast Application

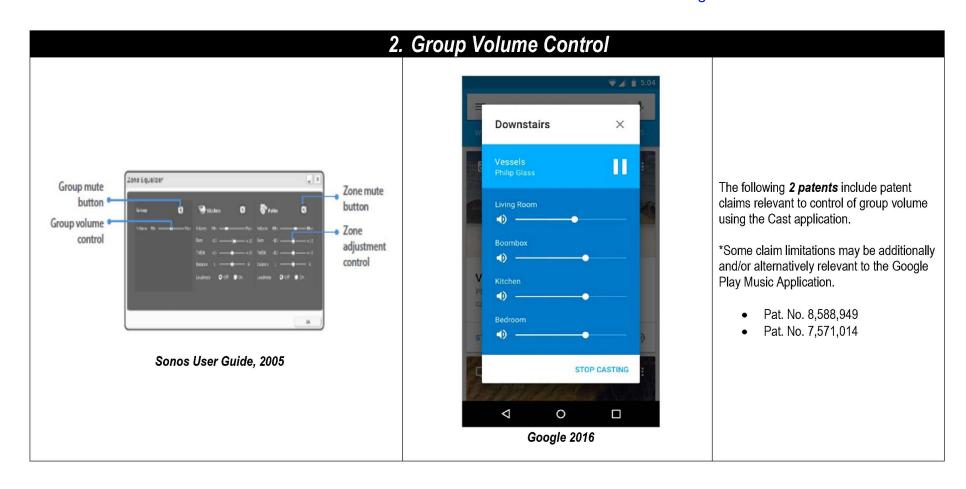


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Google Cast Application⁴



⁴ Some patent assets identified in this section are also relevant to Android with the Google Cast application and/or an Android device (such as a Google Nexus or Google Pixel device) running Android with the Google Cast application.



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3. Setup Over Wifi

1-2-3 Setup

It takes just 3 steps to get your Sonos Digital Music System up and running:

- Connect speakers to your ZonePlayer
- 2 Connect the first Sonos ZonePlayer (with Ethemet cable supplied) to your home network
- 3 Install the computer software (or use a Controller) to configure your music system

Sonos User Guide, 2005

Easily cast music, without the hassle of pairing

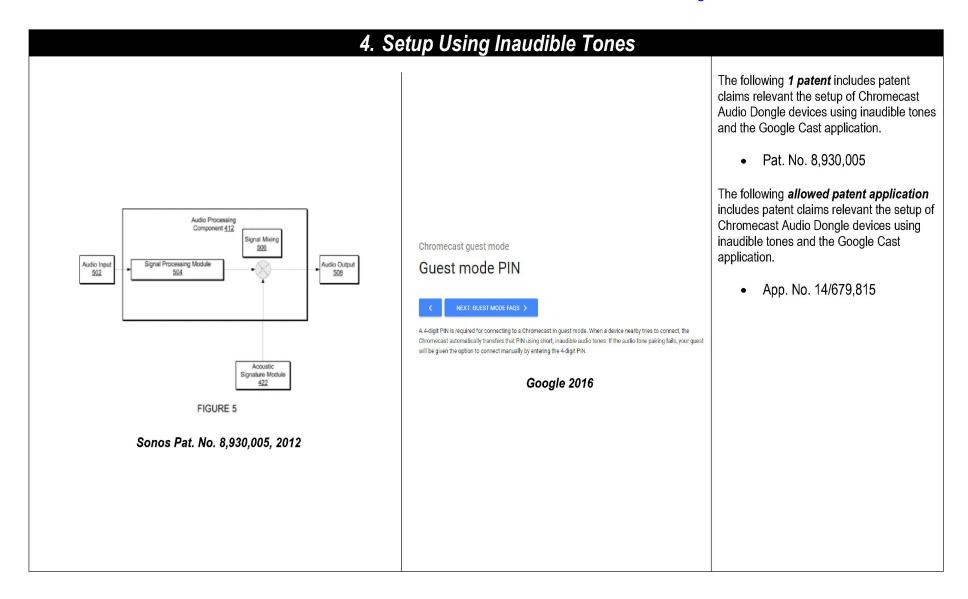
Tap the Cast button from your favorite music apps to start casting to your speakers. Adjust the volume or change the song, right from your phone.

Unlike Bluetooth setup, Google Cast works over WiFi so you can connect more than one device to your speakers at a time and control what's playing from anywhere in the house.

Google 2016

The following *patent disclosure* includes disclosure believed to be relevant to the setup of Chromecast Audio Dongle devices on a WiFi LAN now or in the future.

• Pat. No. 8,326,951



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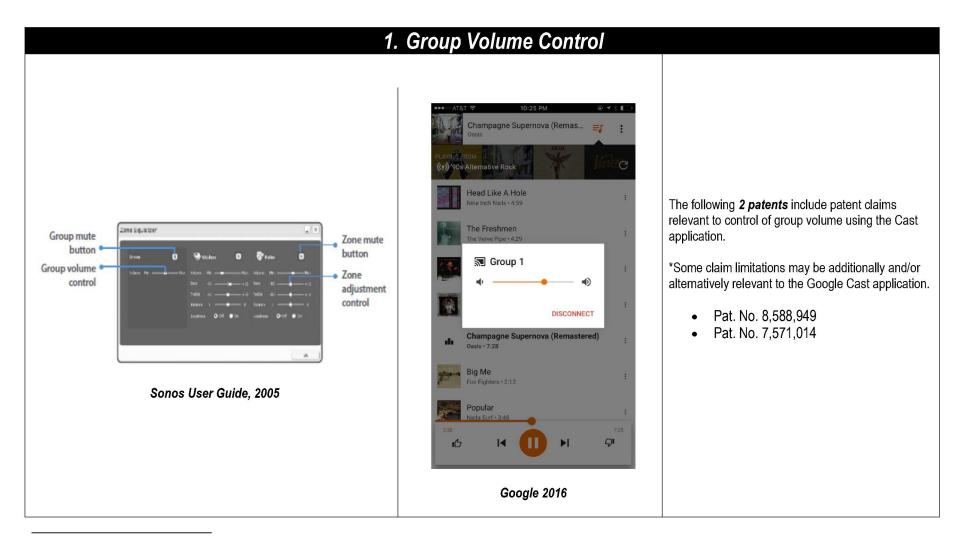
5. Group Maintenance/Status Information Group ID Playback Device ID Group Coordinator Display Name The following 1 patent includes patent claims relevant to the maintenance of Living Room + Dining Room Device1 Group1 Play same music across multiple speakers and status of groups of Chromecast Device2 Group1 Audio Dongle devices, including Google Cast lets you group select speakers together to play the same identification of particular devices Balcony Device3 Group5 song everywhere. according to group identification. Group4 Master Bedroom Device4 Pat. No. 9,348,824 FIGURE 6C Google 2016 Sonos Pat. No. 9,348,824, 2014

Google Play Music Application



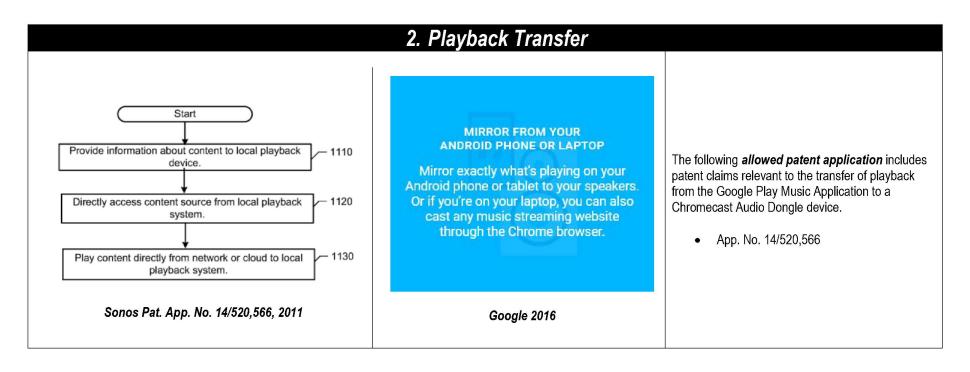
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Google Play Music Application⁵



⁵ Some patent assets identified in this section are also relevant to Android with the Google Play Music Application and/or an Android device (such as a Google Pixel or a Google Nexus device) running Android with the Google Play Music Application.

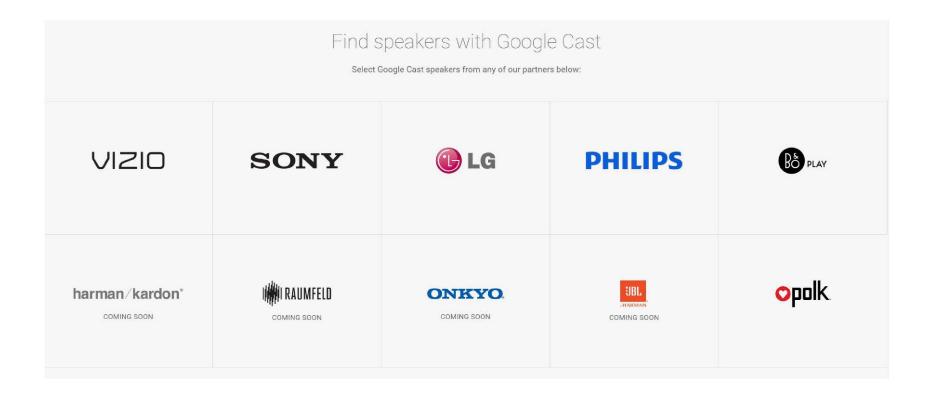
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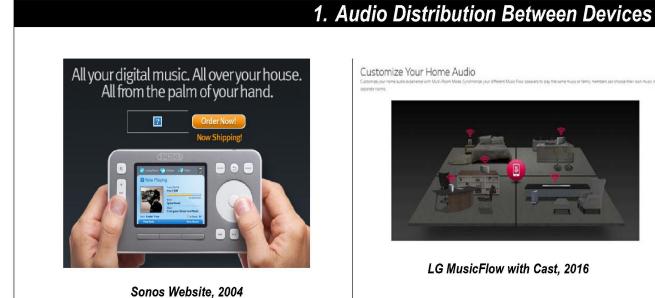
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3. Group Maintenance/Status Information Group Coordinator Display Name Playback Device ID Group ID The following 1 patent includes patent claims Group1 Living Room + Dining Room Device1 relevant to the maintenance of and status of groups Play same music across multiple speakers Device2 Group1 of Chromecast Audio Dongle devices, including identification of particular devices according to group Device3 Group5 Balcony Google Cast lets you group select speakers together to play the same song everywhere. identification. Group4 Master Bedroom Device4 FIGURE 6C Pat. No. 9,348,824 Google 2016 Sonos Pat. No. 9,348,824, 2014

Google Cast SDK, Partner Speakers and Applications



Google Cast SDK, Partner Speakers and Applications



Customize Your Home Audio

LG MusicFlow with Cast, 2016

The following 2 patents include claims relevant to the distribution of audio between Google Partner Speaker devices implementing the Google Cast SDK.

- Pat. No. 9,213,357
- Pat. No. 9,189,011

2. Synchronization of Playback Between Devices

With a Sonos™ Digital Music System you can:

→ Simultaneously play the same song or different songs in as many rooms as you'd like — up to 32.

→ Easily access your entire digital music collection with a full-color LCD screen and scroll wheel.

→ Wirelessly control all your music and all your rooms—from anywhere with Sonosnet™.

→ Enjoy great sound in every room.

Sonos Website, 2004



Vizio SmartCast with Cast, 2016

The following *4 patents* include patent claims relevant to synchronization of playback between Google Partner Speaker devices implementing the Google Cast SDK.

- Pat. No. 9,938.637
- Pat. No. 8,370,678
- Pat. No. 8,689,036
- Pat. No. 9,348,354

3. Group Formation of Devices Turn Your Phone Into The Ultimate Remote. To add a zone to a zone group Touch the Zones button on your Controller. Select zone where desired Select zone to add to Download the VIZIO SmartCast App for free on the music is playing App Store and Google Play. Easily set up and control your multi-room speaker like never before. Griffin | September | Step Specifical little Sonos User Guide, 2005 Vizio SmartCast with Cast, 2016

The following **1** patent includes patent claims relevant to group formation of Google Partner Speaker devices implementing the Google Cast SDK.

Pat. No. 9,182,777

The following *1 patent* includes patent claims relevant to group formation of Google Partner Speaker devices implementing the Google Cast SDK, including specifically the election of a master device for the group.

Pat. No. 9,288,596

The following **2** *patents* include patent claims relevant to the creation of groups using Google Partner Speaker applications implementing the Google Cast SDK.

*Some claim limitations may be additionally and/or alternatively relevant to the Google Cast application.

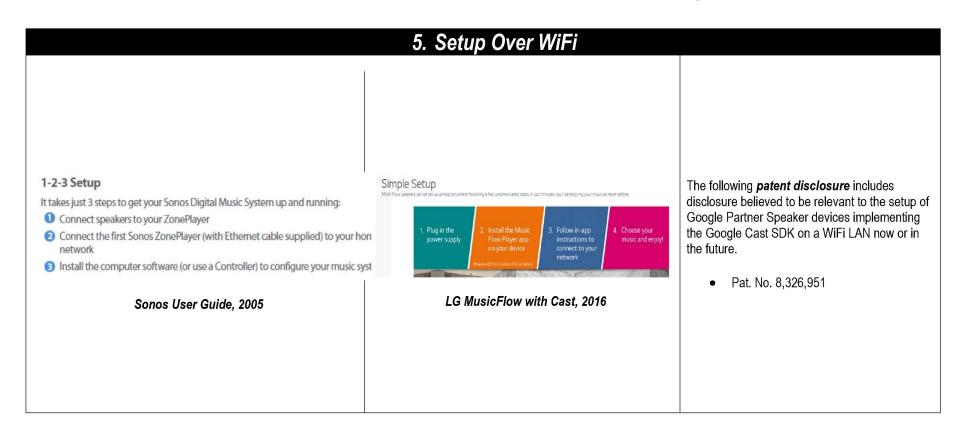
• Pat. No. 9,164,532

• Pat. No. 9,218,017

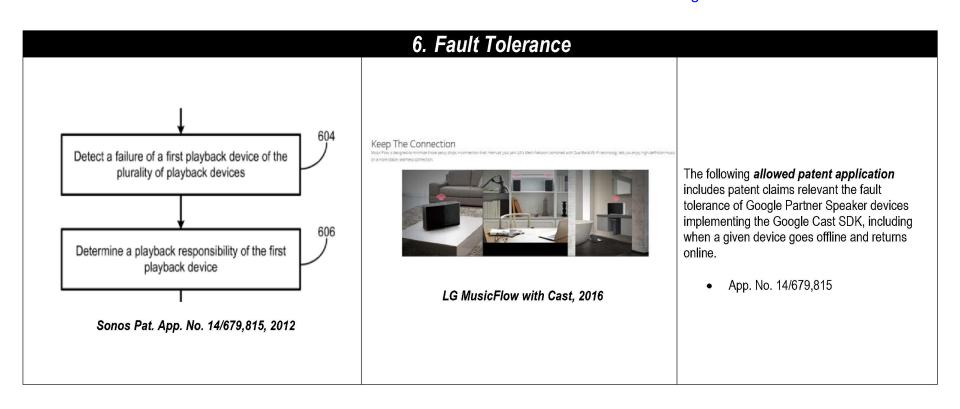
The following **1** additional disclosure includes disclosure and/or patent claims believed to be relevant to group formation of Google Partner Speaker devices implementing the Google Cast SDK, including specifically the election of a master device for the group.

App. No. 14/041,989

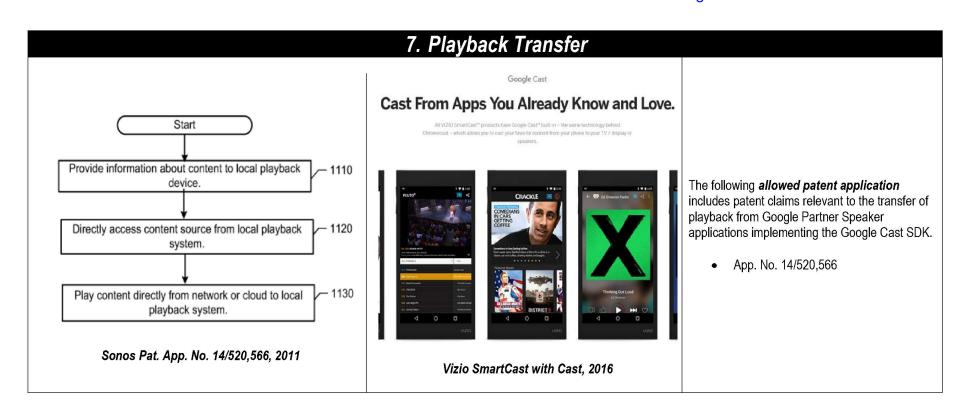
4. Group Maintenance/Status Information Turn Your Phone Into The Ultimate Remote. The following 4 patents include patent claims relevant to the maintenance of and status of Zones button - - - - groups of Google Partner Speaker devices implementing the Google Cast SDK. Download the VIZIO SmartCast App for free on the Pat. No. 9,195,258 Ele Don't Stop App Store and Google Play. Easily set up and Pat. No. 9,207,905 control your multi-room speaker like never before. Ehot i Be Pat. No. 9,170,600 Pat. No. 9,213,356 VIZIO SmartCast Crave 360 V The following 1 patent includes patent claims relevant to the maintenance of and status of groups of Google Partner Speaker devices Touch the Zones button to view the music implementing the Google Cast SDK, including playing in each room identification of particular devices according to group identification. Sonos User Guide, 2005 Pat. No. 9,348,824 Vizio SmartCast with Cast, 2016



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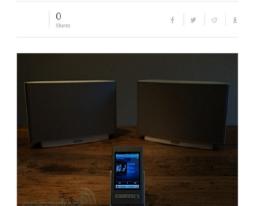


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8. Stereo Pairing [EXAMPLE "VERTICAL" FEATURE]

Sonos 3.2 update and S5 stereo pairing put to the test

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Sony with Cast, 2016

The following *patent disclosures* includes disclosure and/or patent claims believed to be relevant, now or in the future, to arranging, in a Stereo Pair, Google Partner Speaker devices implementing the Google Cast SDK.

- Pat. No. 9,219,959
- Pat. No. 9,202,509

9. Line-In Processing [EXAMPLE "VERTICAL" FEATURE]

Autoplay

Line-In Autoplay feature will allow you to automatically play music when a signal is being sent to the Line-In port. Connect the audio line-in cable provided with your Sonos product (or a standard RCA cable) from the Audio out connection(s) on the external source to the analog Audio In connection(s) on the back of your Sonos product. The source device will automatically be detected and displayed on the Sonos controller

Sonos, 2012

CONNECTION HUB

HASSLE-FREE

CONNECTIVITY

The B&O PLAY Connection Hub* allows you to hook up Beoplay S8 to almost any TV and audio sources, using optical or analogue cables.

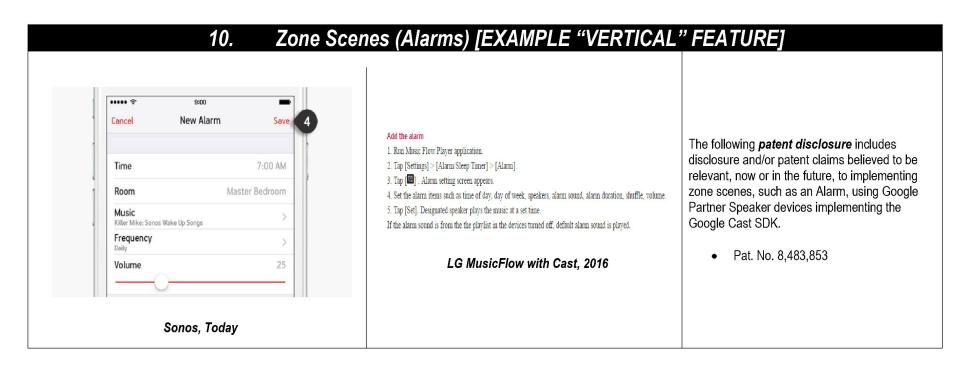
No extra remotes are needed, as the Connection Hub learns the IR commands from your TV remote or any other remote.

The Connection Hub handles up to 3 connections at a time, and automatically changes to the last audio source to play, so if you're listening to music, and the TV is turned on, the sound of the TV will take over. It's as easy as that!

B&O with Cast, 2016

The following *patent disclosure* includes disclosure and/or patent claims believed to be relevant, now or in the future, to line-in switching with Google Partner Speaker devices implementing the Google Cast SDK.

• Pat. No. 8,938,312



APPENDIX A

Index According to Example Google Product

Page	Example Google Product	Relevant Patents Identified
4	Chromecast Audio Dongle	Issued Patents 9,213,357; 9,189,011; 8,938,637; 8,370,678; 8,689,036; 9,348,354; 9,182,777; 9,288,596; 9,195,258; 9,207,905; 9,170,600; 9,213,356; 9,348,824; 8,930,005 Allowed Applications
		14/558,944; 14/679,815; 14/041,989
11	Google Cast Application	Issued Patents 9,164,532; 9,218,017; 8,588,949; 7,571,014; 8,930,005; 9,348,824
		Allowed Applications 14/679,815
17	Google Play Music Application	Issued Patents 8,588,949; 7,571,014; 9,348,824 Allowed Applications
		14/520,566
21	Google Cast SDK, Partner Speakers and Applications	Issued Patents 9,213,357; 9,189,011; 8,938,637; 8,370,678; 8,689,036; 9,348,354; 9,182,777; 9,288,596; 9,195,258; 9,207,905; 9,170,600; 9,213,356; 9,348,824; 9,164,532; 9,218,017 Allowed Applications
		14/679,815; 14/520,566; 14/041,989
		Disclosures Pertaining to "Vertical" Features 9,219,959; 9,202,509; 8,938,312; 9,130,771; 8,483,853; 9,363,255